What is claimed:

1. Electromechanical valve control actuator for internal combustion engines, comprising a electromagnet (200, 300, 400, 500, 600, 700, 1006) with a magnet (202, 204, 206, 302, 402, 502, 702, 1001, 1002) and with a mobile magnetic plate (210, 310, 610, 710) moving into the vicinity of the electromagnet, the magnet (202, 204, 206, 302, 402, 502, 702, 1001, 1002) being located on a surface of the electromagnet (200, 300, 400, 500, 600, 700, 1006) opposite the plate (210, 310, 610, 710), characterized in that the electromagnet (200, 300, 400, 500, 600, 700, 1006) comprises a E-shaped magnetic circuit (208, 304, 404, 602, 704), and the magnet (202, 204, 206, 302, 402, 502, 702, 1001, 1002) being located at the end of a branch of the E-shaped circuit.

2. Actuator in accordance with claim 1, characterized in that a rod is an integral part of the plate, the rod being located outside the E-shaped circuit.

3. Actuator in accordance with claim 1 or 2, characterized in that a plurality of branches of the circuit are equipped with a magnet.

4. Actuator in accordance with claim 1, 2 or 3, characterized in that at least one said magnet has a cross section (S_a) larger than the cross section ($2S_c$) of the branch on which it is located.

5. Actuator in accordance with one of the claims 1 through 4, characterized in that the plate (610) has a cross section (S_p) that is smaller than the cross section (S_e) of the end branches (606) of the E-shaped support.

6. Actuator in accordance with one of the claims 1 through 5, characterized in that the cross section (S_e) of an end branch of the support is smaller than half the cross section ($2S_c$) of the central branch of the support.

7. Actuator in accordance with one of the claims 1 through 6, characterized in that the cross section (S_e) of the junction between an end branch of the support and the central branch of the E-shaped support is smaller than half the cross section ($2S_c$) of the central branch of the support.

8. Internal combustion engine comprising an electromechanical valve control actuator equipped with an electromagnet with a magnet and with a mobile magnetic plate coming into the vicinity of the electromagnet, characterized in that the actuator is in accordance with one of the claims 1 through 7.